

REMARKS/ARGUMENTS

Claims 1-5, 9, 14, 15, 17 and 18 remain in the application, all of which stand rejected. Although the Examiner's "Office Action Summary" refers to claims 1-5, 9 and 14-18, claim 16 was canceled in a prior Amendment.

1. Rejection of Claims 1, 3, 4, 5 and 9 Under 35 USC §102(e)

Claims 1, 3, 4, 5 and 9 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pat. No. 6,871,233 to Bearden et al. (hereinafter, "Bearden").

Claim 1 recites:

An apparatus for identifying a requested level of service for a transaction, comprising:
computer readable storage media; and
computer readable program code stored in said storage media, comprising:
a) program code for prompting a user to select a requested level of service for said transaction; and
b) program code for assigning said requested level of service to said transaction.

Claim 5 recites:

An apparatus for identifying a requested level of service for a transaction, comprising:
computer readable storage media; and
computer readable program code stored in said storage media, comprising:
a) program code for selecting said requested level of service for said transaction, said requested level of service being based on a user identification; and
b) program code for assigning said requested level of service to said transaction.

In rejecting claims 1 and 5, the Examiner asserts that:

Bearden teaches the invention as claimed including method and apparatus for use in specifying and insuring service-level quality of service in computer networks (see abstract).

As to claims 1 and 5, Bearden teaches an apparatus for identifying a requested level of service for a transaction, comprising:

computer readable storage media (figure 3, item 302); and computer readable program code stored in said storage media, comprising:

a) a program code for prompting a user to select a requested level of service for said transaction, said requested level of service being based on a user identification (column 1, lines 54-67; column 4, lines 20-25);

b) program code for assigning said requested level of service to said transaction (column 2, lines 3-7).

1/25/2006 Office Action, p. 3, sec. 3 (emphasis added).

Applicants disagree. Of note, neither of applicants' claims 1 or 5 contains the limitation a) that is referenced by the Examiner in the above excerpt. It appears that the Examiner has formed this limitation by combining the limitations a) found in applicants' claims 1 and 5. However, the Examiner's above limitation a) is not found in either of applicants' claims. It is therefore believed that the Examiner's rejection of claims 1 and 5 is improper, does not set forth a prima facie basis for rejecting these claims, and should be withdrawn.

Regardless of the above deficiency in the Examiner's rejection, and in the interest of pursuing a rapid conclusion to prosecution, applicants note that 1) with respect to claim 1, Bearden fails to show "a) program code for prompting a user to select a requested level of service for said transaction...", and 2) with respect to claim 5, Bearden fails to show "a) program code for selecting said requested level of service for said transaction, said requested level of service being based on a user identification...".

Bearden teaches how a user, such as an administrator, can:

...specify parameters for predefined types of service level QoS goals. A QoS goal is defined by specifying a client, a service and a QoS expression. A QoS expression is a proposition that indicates the client's desired range of values for some QoS metric, e.g., service response time or service availability.

Bearden col. 1, lines 56-61.

As shown in Bearden's FIG. 4, and specifically in decision boxes 411 and 412, and in steps 417 and 418, Bearden's QoS goals cause the network resources assigned to a particular client to be increased or decreased based on whether a QoS goal was met (or not) for past transactions. Thus, the client is not prompted to "select a requested level of service" for any particular transaction, but is only prompted to specify a QoS goal for all transactions. The QoS goal is then enforced by a management server 301 (FIG. 3) which automatically allocates and de-allocates network resources to increase or decrease the QoS given to a *current* transaction, in response to the QoSs that were actually provided to *past* transactions. An overall QoS goal for a group of transactions is thereby maintained. If a user wants to request a particular level of service for any particular transaction, it appears that Bearden offers no way to do this. Nor does Bearden provide any way to select a "requested level of service for [a] transaction. . .based on a user identification" (as recited in claim 5).

Claims 1 and 5 are believed to be allowable for at least the above reasons.

With respect to claim 3, the Examiner asserts that Bearden teaches "program code for selecting a backup level of service" in FIG. 4, and in col. 5, line 45 - col. 6, line 24. Applicants disagree. The Examiner's cites only refer to allocating and de-allocating network resources to achieve a single QoS goal (or set of goals). Applicants cannot find any mention of anything corresponding to a "backup level of service". Claim 3 is therefore believed to be allowable because it depends from claim 1, and for other reasons.

Claim 4 is believed to be allowable at least for the reason that it depends from claim 1. Claim 9 is believed to be allowable at least for reasons similar to why claim 1 is believed to be allowable.

2. Rejection of Claims 14, 15, 17 and 19 Under 35 USC §102(e)

Claims 14, 15, 17, and 19 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pat. No. 6,483,805 to Davies et al. (hereinafter, "Davies").

Claim 14 recites:

An apparatus for routing a transaction over a network based on a requested level of service associated with said transaction, comprising:

a number of computer readable storage media; and
computer readable program code stored in said number of storage media, comprising:

- a) program code for selecting said requested level of service for said transaction;
- b) program code for assigning a service tag to said transaction, said service tag including said requested level of service, and said program code assigning parts of said service tag at more than one point on said network;
- c) program code for reading said requested level of service from said service tag; and
- d) program code for directing said transaction over said network based on said requested level of service read from said service tag.

The examiner states, "a) program code for selecting said requested level of service for said transaction [is taught by Davies at] column 7, lines 47-59..." (see, 1/25/2006 Office Action, p. 5, §a). Applicants disagree. Davies states:

Because of the nature of the packet traffic generated by an application requiring a transactional service (for example web page request and download) it is difficult to create such a Service Level

Agreement based on a single class for such packets. The network is unable to predict or readily control the load imposed by traffic of this nature.

Davies, column 7, lines 47-59.

Applicants fail to appreciate the relevance of the cited reference and find no teaching or suggestion of the claimed limitation. Ignoring for the moment that the reference routes packets, as opposed to directing transactions, the reference appears to be teaching away from the Applicant's claim 14. While Davies finds it "difficult to create" a single class of packets for a transaction for predicting and controlling the load of such packets, claim 14 selects level of service for a transaction, assigns a service tag to a transaction, and then directs the transaction accordingly.

The examiner also asserts that:

b) program code for assigning a service tag to said transaction, said service tag includes said requested level of service, and said program code assigning parts of said service tag at more than one point on said network [is taught by Davies at] column 6, line 66 to column 7, line 6 [and] column 8, line 62 to column 9, line 4...

1/25/2006 Office Action, p. 5. §b.

Applicants disagree. Davies teaches, "...marking each individual **packet** used to deliver data across an IP network with a code comprising a small number of bits. (Davies, col. 6, line 66 – col. 7, line 6). Applicants' claim 14 recites, "assigning a service tag to [a] **transaction**".

Davies at column 8, line 62 to column 9, line 4 discusses the throttling of the data flow sent by a TCP source via a windowing mechanism. Applicants fail to appreciate the relevance of the reference and find no teaching or suggestion of the claimed limitation.

The examiner then asserts that:

c) reading said requested level of service from said service;
and d) directing said transaction over said network based on said requested level of service read from said service tag [is taught by Davies at] column 7, lines 34-45.

1/25/2006 Office Action, p. 5, §c.

Applicants disagree. What Davies teaches is:

Routers which process the packets as they are **forwarded** across the IP network inspect the code and treat each packet marked with the same value in the same way when determining the priority or preference to give to those packets on the next hop of their path through the network. **Each set of similarly-marked packets constitutes an [sic] class, and by applying different treatments to different classes a different quality of service can be obtained for each class.** For example, access to a portion of the network may be refused to traffic in a given class which exceeds, in some measurable way, a previously agreed contract typically known Service Level Agreement (SLA).

Davies, column 7, lines 34-45.

Applicants' claim 14 teaches the reading of a level of service from a **transaction's** service tag and **directing** the **transaction** accordingly, whereas Davies **routes packets**. Davies' purpose for placing "a small number of bits" on a packet is to lump certain "bits" into classes. The classes are then subject to class-specific routing. Routing is the passive execution of processes to *allow* a packet to reach its intended destination. Directing, as in claim 14, actively *determines* where the transaction is to go.

For at least the above reasons, claim 14 is believed to be allowable. Claims 15, 17, and 18 are believed allowable for at least the reason that they depend from claim 14.

3. Rejection of Claim 2 Under 35 USC §103(a)

Claim 2, although not specifically mentioned in the Examiner's rejection, appears to stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,871,233 to Bearden et al. (hereinafter, "Bearden") in view of U.S. Pat. No. 6,483,805 to Davies et al. (hereinafter, "Davies").

Applicants believe claim 2 is allowable, at least, for the reason that it depends from claim 1, which is believed to be allowable over Bearden. See, Section 1 of these Remarks/Arguments, *supra*. Davies fails to teach what is missing from Bearden.

Furthermore, the references lack any suggestion to be combined, and such a combination would be counterintuitive. Davies teaches the routing of packets (Davies, abstract). It is known in the art that packets may be a portion of data or a transaction. A solution that is indifferent to a packet's content, that is, if the packet is a transaction, a portion of a transaction, or, for example, a video file, is unlikely to be considered a viable solution to transaction routing. Davies also views the problem of managing individual flows of packets, let alone individual packets, as an impossibility.

To avoid problems of scalability in the core of large networks, where there are many hundreds or thousands or millions of flows of packets, **the QoS cannot be specified at the granularity of individual flows** in the core of the network. The treatment of packets in the core of the network to achieve the desired QoS must be very simple: there is very little time and processing effort available for each packet in a network core device in which a new packet may be arriving as frequently as every 50-100 ns.


Davies, p. 6, lines 41-49.

For at least the above reasons, claim 2 is believed to be allowable.

4. Conclusion

In summary, the art of record does not teach nor suggest the subject matter of applicants' claims 1-5, 9, 14, 15, 17 and 18. These claims are therefore believed to be allowable, and accordingly, applicants respectfully request the issuance of a Notice of Allowance.

Respectfully submitted,
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